

CLAIMS

[I CLAIM]

1. A method for preventing or correcting a vitamin deficiency in a dialysis patient comprising dialysis of the patient with a dialysate solution which comprises an effective amount of at least one vitamin selected from the group consisting of folic acid, vitamin B₆, thiamine, vitamin B₁₂, and pharmaceutically acceptable salts thereof.

2. The method of claim 1 wherein the dialysis is hemodialysis.

3. The method of claim 2 wherein the vitamin deficiency is prevented by adding at least a physiological amount of the vitamin to the dialysate solution.

4. The method of claim 2 wherein the vitamin deficiency is corrected by adding a supraphysiologic amount of the vitamin to the dialysate solution.

5. The method of claim 2 wherein the dialysate solution comprises up to 1500 $\mu\text{g/L}$ folic acid or the equivalent molar amount of a pharmaceutically acceptable salt thereof.

6. The method of claim 5 wherein the dialysate solution comprises up to 15 $\mu\text{g/L}$ folic acid or the equivalent molar amount of a pharmaceutically acceptable salt thereof.

7. The method of claim 2 wherein the dialysate solution comprises up to 100 $\mu\text{g/L}$ vitamin B₆ or the equivalent molar amount of a pharmaceutically acceptable salt thereof.

8. The method of claim 7 wherein the dialysate solution comprises up to 10 $\mu\text{g/L}$ vitamin B₆ or the equivalent molar amount of a pharmaceutically acceptable salt thereof.

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⁷/₈ The method of claim 2 wherein the dialysate solution comprises up to 75 $\mu\text{g/L}$ thiamine or the equivalent molar amount of a pharmaceutically acceptable salt thereof.

5 ⁸/₁₀ The method of claim ⁷/₉ wherein the dialysate solution comprises up to 20 $\mu\text{g/L}$ thiamine or the equivalent molar amount of a pharmaceutically acceptable salt thereof.

⁹/₁₁ The method of claim 2 wherein the dialysate solution comprises up to 60 $\mu\text{g/L}$ vitamin B₁₂ or the equivalent molar amount of a pharmaceutically acceptable salt thereof.

10 ¹⁰/₁₂ The method of claim ⁹/₁₁ wherein the dialysate solution comprises up to 0.6 $\mu\text{g/L}$ vitamin B₁₂ or the equivalent molar amount of a pharmaceutically acceptable salt thereof.

15 13. The method of claim 1 wherein the dialysate solution further comprises an effective amount of vitamin C or a pharmaceutically acceptable salt thereof.

14. The method of claim 13 wherein the dialysate solution comprises up to 40 mg/L vitamin C or the equivalent molar amount of a pharmaceutically acceptable salt thereof.

20 15. The method of claim 14 wherein the dialysate solution comprises up to 15 mg/L vitamin C or the equivalent molar amount of a pharmaceutically acceptable salt thereof.

16. The method of claim 1 wherein the dialysate solution further comprises an effective amount of carnitine or a pharmaceutically acceptable salt thereof.

25 17. The method of claim 16 wherein the dialysate solution comprises up to 300 $\mu\text{mol/L}$ carnitine or the equivalent molar amount of a pharmaceutically acceptable salt thereof.

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18. The method of claim 17 wherein the dialysate solution comprises up to 50 $\mu\text{mol/L}$ carnitine or the equivalent molar amount of a pharmaceutically acceptable salt thereof.

5 19. The method of claim 1 wherein the dialysate solution comprises at least two nutrients selected from the group consisting of folic acid, vitamin B₆, thiamine, vitamin B₁₂, vitamin C, carnitine, and pharmaceutically acceptable salts thereof.

10 20. The method of claim 19 wherein the dialysate solution comprises at least three nutrients selected from the group consisting of folic acid, vitamin B₆, thiamine, vitamin B₁₂, vitamin C, carnitine, and pharmaceutically acceptable salts thereof.

21. The method of claim 20 wherein the dialysate solution comprises folic acid, vitamin B₆, thiamine, vitamin B₁₂, vitamin C, and carnitine, or pharmaceutically acceptable salts thereof.

15 22. The method of claim 1 wherein the dialysis is peritoneal dialysis.

23. The method of claim 22 wherein the vitamin deficiency is prevented by adding at least a physiological amount of the vitamin to the dialysate solution.

20 24. The method of claim 22 wherein the vitamin deficiency is corrected by adding a supraphysiologic amount of the vitamin to the dialysate solution.

25 25. The method of claim 22 wherein the dialysate solution comprises up to 15 mg/L folic acid or the equivalent molar amount of a pharmaceutically acceptable salt thereof.

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26. The method of claim 22 wherein the dialysate solution comprises up to 10 mg/L vitamin B₆ or the equivalent molar amount of a pharmaceutically acceptable salt thereof.

5 27. The method of claim 22 wherein the dialysate solution comprises up to 7.5 mg/L thiamine or the equivalent molar amount of a pharmaceutically acceptable salt thereof.

28. The method of claim 22 wherein the dialysate solution comprises up to 1.0 mg/L vitamin B₁₂ or the equivalent molar amount of a pharmaceutically acceptable salt thereof.

10 29. The method of claim 22 wherein the dialysate solution further comprises an effective amount of vitamin C or a pharmaceutically acceptable salt thereof.

15 30. The method of claim 29 wherein the dialysate solution comprises up to 500 mg/L vitamin C or the equivalent molar amount of a pharmaceutically acceptable salt thereof.

31. The method of claim 22 wherein the dialysate solution further comprises an effective amount of carnitine or a pharmaceutically acceptable salt thereof.

20 32. The method of claim 31 wherein the dialysate solution comprises up to 1 mmol/L carnitine or the equivalent molar amount of a pharmaceutically acceptable salt thereof.

25 33. The method of claim 22 wherein the dialysate solution comprises at least two nutrients selected from the group consisting of folic acid, vitamin B₆, thiamine, vitamin B₁₂, vitamin C, carnitine, and pharmaceutically acceptable salts thereof.

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34. The method of claim 33 wherein the dialysate solution comprises at least three nutrients selected from the group consisting of folic acid, vitamin B₆, thiamine, vitamin B₁₂, vitamin C, carnitine, and pharmaceutically acceptable salts thereof.

5 35. The method of claim 34 wherein the dialysate solution comprises folic acid, vitamin B₆, thiamine, vitamin B₁₂, vitamin C, and carnitine, or pharmaceutically acceptable salts thereof.

10 ~~36. A dialysate solution comprising an effective amount of at least one vitamin selected from the group consisting of folic acid, vitamin B₆, thiamine, vitamin B₁₂, and pharmaceutically acceptable salts thereof.~~

~~37. The dialysate solution of claim 36 further comprising an effective amount of vitamin C.~~

~~38. The dialysate solution of claim 36 further comprising an effective amount of carnitine.~~

15 ~~39. The dialysate solution of one of claims 36-38 which is a hemodialysis solution.~~

~~40. The dialysate solution of one of claims 36-38 which is a peritoneal dialysis solution.~~

20 ~~41. The dialysate solution of claim 36 comprising at least two nutrients selected from the group consisting of folic acid, vitamin B₆, thiamine, vitamin B₁₂, vitamin C, carnitine, and pharmaceutically acceptable salts thereof.~~

25 ~~42. The dialysate solution of claim 41 wherein the dialysate solution comprises at least three nutrients selected from the group consisting of folic acid, vitamin B₆, thiamine, vitamin B₁₂, vitamin C, carnitine, and pharmaceutically acceptable salts thereof.~~

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43. The dialysate solution of claim 42 wherein the dialysate solution comprises folic acid, vitamin B₆, thiamine, vitamin B₁₂, vitamin C, and carnitine, or pharmaceutically acceptable salts thereof.

5 44. A vitamin concentrate solution for use in a dialysate solution comprising at least one vitamin selected from the group consisting of folic acid, vitamin B₆, thiamine, vitamin B₁₂, and pharmaceutically acceptable salts thereof.

10 45. The vitamin concentrate solution of claim 44 comprising at least two nutrients selected from the group consisting of folic acid, vitamin B₆, thiamine, vitamin B₁₂, vitamin C, carnitine, and pharmaceutically acceptable salts thereof.

46. The vitamin concentrate solution of claim 45 comprising at least three nutrients selected from the group consisting of folic acid, vitamin B₆, thiamine, vitamin B₁₂, vitamin C, carnitine, and pharmaceutically acceptable salts thereof.

15 47. The vitamin concentrate solution of claim 46 comprising folic acid, vitamin B₆, thiamine, vitamin B₁₂, vitamin C, and carnitine, or pharmaceutically acceptable salts thereof.

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48. The method of claim 1 wherein the dialysate solution further comprises at least one iron salt.

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49. The method of claim 48 wherein the iron salt is ferric pyrophosphate.

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50. The method of claim 1 wherein the dialysate solution further comprises at least one trace element selected from the group consisting of arsenic, rubidium, bromine, zinc, and pharmaceutically acceptable salts thereof.

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